

EXHIBIT 148

REDACTED

From: Aparna Pappu <[REDACTED]>
To: [REDACTED]
Sent: Fri, 29 Jan 2016 15:57:30 -0500
Subject: Re: IAB Ad Ops Meeting notes
Cc: [REDACTED]

Glad to see the comment from GroupM about paying more and seeing recycled impressions - looking fwd to a counter movement from the advertiser side to curb the recycling.
Also climate change denial reference? hilarious

On Fri, Jan 29, 2016 at 3:55 PM, [REDACTED] wrote:

+ pub notes

On Fri, Jan 29, 2016 at 3:39 PM, [REDACTED] wrote:

Notes from the most recent IAB Ad Ops Meeting this week. Deck attached and some key points bolded.

Header Bidding

- Clearly a hot topic at the conference (I was dialed in). In the meeting was stated as a simple fact that pubs see lift from it. Apparently some pubs at the conference publicly stated they saw [REDACTED] lift.
- An estimated [REDACTED] have implemented header bidding
- **The latency argument against it didn't seem to hold much water for those in the room and kind of felt like denial of global warming.** Several people made the point that waterfalls are as bad if not worse and header bidding can actually improve latency due to how it does cookie matching
- Several challenges were called out including: *user experience* (latency); *ad quality* since pubs don't control and not via OpenRTB; *technical stability* -- it's new and things break, no guidelines, questions of scalability and greater risk of data leakage; *unclear impact and implementation on mobile*; *buyers seeing higher CPM's* since they're bidding on the same inventory via multiple exchanges
- The Tech Lab Council wants to address several questions including:
 - How many partners is too much?
 - Buying structures, e.g., impact on PMP
- Emerging formats, will it impact video, PTV, etc?
- Technical standards
 - On the last point there was some debate about how should the tech lab get involved? Implementation, speed measurement, interaction with multiple partners, is there a server side solution, etc.
- There will be two paths:
 - **IAB US Prog Council is forming a Working Group to do a white paper on market analysis.** That has to happen before any formal recommendation can be made. **White paper is basic the discovery phase that may evolve into a tech working group with clear standards/support for header bidding, e.g., extension of OpenRTB.** IAB UK looking to do the same with their

Programmatic Council in March.

- **In addition, IAB Tech Lab Board has agreed to put together an open source guide/library on implementation. Will be driven by Tech Lab members, eg., AN, Rubicon, etc.** This is not about endorsing pre-bid js. That's just one piece of code from AN and would be one of many vs. a standard which is more of a recommendation about header bidding itself
- **Very interesting comments from the Group M rep there who said while it might be a more efficient way to make sure we're giving the right inventory to the highest paying customer, "it's not a good thing for us." He said if they're finding the right audience, great. But if they're paying more because they're bidding on the same impressions, not so much. Said they're working with verification services to investigate and ultimately their response might be to push as much as possible to PMP.**

Viewability

- Long debate with no clear outcome on how to increase adoption
- **Pubs ([REDACTED] in particular) said they're getting requests from groups for non-standard things.** Unclear if that's because standard is wrong or not well understood. E.g., audience verification and viewability and to use different vendors for these two things which causes massive discrepancy issues
- Seeing better agreement among "big four vendors" on the numbers. Still a small % of overall revenue for pubs.
- **Threshold asks go against the standard ways just about every pub sells today. Threshold limits are harder than viewable guarantees**
- **Complaints that many buyers are not adhering to existing T&C's which say discrepancies under 10% are ok**

Ad blocking

- Three big complaints: Reduction in inventory, increase in discrepancies and reduced value of the audience as they block tracking via acceptable ads
- Continuing to work on detection of ad blocking, putting together a post-detection best practices white paper, e.g., notify, choice or constraint
- LEAN Ads Principles are moving forward to an actionable set of guidelines. Trying to convert them to a scoring mechanism on creative, delivery and context and then research UX. "A framework for structured discussion" about ads.
- Unclear what they will do with these scores.
- **IAB's attack is focused on ad blocking business models, not defending the ads themselves. Tech Lab is focused on user experience.**

